

Appl. No. 09/975,910

APP 1374

Amdt. Dated October 6, 2005

Reply to Office action of June 24, 2005

Remarks/Arguments

The specification is being amended to identify the related applications directed to common subject matter with this application.

Claims 1 -15 stand rejected as anticipated, 35 USC 102 (e), by Maclean printed, application 2002/191859. In response thereto applicants have amended claims 1, 3, 8, and 15, and have canceled claims 2 and 14, the subject matter of claim 2 being incorporated into its parent claim 1.

Applicants respectfully submit that Maclean has no relevance to applicants' invention and that the Maclean apparatus for communicating between different wireless nodes would not, if subsequent to applicants' invention, be in any way an infringement of applicants' claims, as is a prerequisite for a rejection of anticipation under Section 102.

Applicants' invention is directed to effecting a smooth handoff as a mobile station roams from a first base station to a second base station both served by a wireless subnet and specifically involves the assignment, by the first base station, of a shadow address to the mobile station, which shadow address, as recited in various of the claims, is stored in a watch list for the mobile station and is used for transmitting a packet to the mobile station that is roaming. None of this is consistent with Maclean's disclosure.

Applicants appreciate that the expression "shadow address" is not a term of art with respect to wireless communications systems. However, applicants, as they are entitled to, have defined and explained the meaning of that expression in their specification, particularly in Section 1.1 from page 12, line 20 to page 15, line 11. See, for example, at page 14, lines 19-21, "With the shadow address approach, besides the unique wireless layer-2 address normally allocated to each mobile station, a unique wireline layer-2 address is also assigned to the mobile station." Further, at page 15, lines 7-11, "In essence, the wireline layer-2 address assigned to a mobile station can be viewed as a "shadow" that the mobile station casts on the wireline layer 2. For this reason, the wireline layer-2 address assigned to a mobile station will be referred to as the shadow wireline layer-2 address of the mobile station, or 'shadow address' for short."

Maclean, far from having any relevance to the problems of smooth handoff, is concerned with issues of security for communications between wireless nodes. "By using a public address of a core network element when communicating between different wireless networks and using a private network when communicating within a wireless network, security is enhanced since private network addresses are exposed to a relatively insecure link between wireless networks. By enhancing security, sensitive information, such as subscriber profiles, billing information, and the like, maintained by entities within a wireless network are protected against unauthorized access" (Para. 0011). In Maclean a roaming mobile station 16 in moving between the two different wireless networks 52 and 54 may want to utilize its home support node facilities rather than that of the visited public land mobile network for security reasons (see Para 0034). Note that "For

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enhanced security, communications between the HBG 36 and the V-BG 30 are protected by a security protocol, such as the Internet Protocol security (IPsec) protocol" (Para.37). Located within these boarder gateways (BGs) are network address translators (NATs) 32 and 38 which translate between the public and private addresses. The translation process is described in Para. 40, cited by the Examiner. However, applicants fail to see any way that the translation between given public and private addresses describes or resembles applicants' shadow address which is assigned for a mobile by a base station. In applicants' invention the shadow address is used in place of the normal link layer or IP address of the mobile station, but this is in no way a translation between given private and public addresses.

Based on the Examiner's erroneous reading of the NATs as related to applicants' shadow address, the Examiner, it is respectfully submitted, also errs in applying this reference to applicants' other claims. Thus, for example, there is nothing in Maclean Para. 40, cited by the Examiner with respect to applicants' claim 3, that relates to communicating a shadow address from a base station to a sending device in response to an address resolution request by the sending device. Similarly, Maclean does not disclose, as recited in claim 7, transmitting the shadow address to a second base station as part of a standard message to register the mobile station with the second base station during roaming.

The Examiner's reliance on Maclean with respect to the other claims is similarly based on the Examiner's erroneous interpretation of the NATs and the public and private addresses.

The distinctions discussed above are set forth in the claims, as amended. Thus in claim 1, as amended applicants recite assigning by the first base station a shadow address to the mobile station and storing the shadow address in both the first and second base stations, with the shadow address being used for transmitting a packet from a sending device.

Claim 5 further distinguishes from Maclean by reciting sending the shadow address from the first base station to the mobile station and storing the shadow address in the mobile station. Such is not in any way described by Maclean at Paras. 27 and 40, cited by the Examiner, which paragraphs describe the translation between the public and private addresses.

Applicants submit that similar distinctions exist in the other claims with respect to the Maclean disclosure and will not unduly lengthen this response by specifically pointing that out for each of the claims remaining in the application.

Reconsideration and allowance of claims 1, 3-13, and 15, as amended, are therefore respectfully requested.

It is believed that this application is in condition to be passed to issue, and such action is also respectfully requested. However, if the Examiner believes it would, in any

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way expedite the prosecution of this application, he is invited to telephone applicants' attorney at the number set forth below.

A one-month extension of time is being submitted herewith.

Respectfully submitted,

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